



General

Guideline Title

Best evidence statement (BEST). Use of care giver education to prevent positional plagiocephaly.

Bibliographic Source(s)

Cincinnati Children's Hospital Medical Center. Best evidence statement (BEST). Use of care giver education to prevent positional plagiocephaly. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 2012 Jun 6. 5 p. [9 references]

Guideline Status

This is the current release of the guideline.

Recommendations

Major Recommendations

The strength of the recommendation (strongly recommended, recommended, or no recommendation) and the quality of the evidence (1a to 5b) are defined at the end of the "Major Recommendations" field.

It is recommended that care givers of infant(s) routinely receive education regarding "tummy time" and infant positioning beginning prior to two months of age to decrease the amount of time infants spend in positions other than supine and decrease the incidence of plagiocephaly (van Vlimmeren et al., 2008 [2a]; Wen et al., 2011 [2b]; Cavalier et al., 2011 [3a]; Lennartsson, 2011 [4b]; Jennings, Sarbaugh, & Payne, 2005 [4b]).

Definitions:

Table of Evidence Levels

Quality Level	Definition
1a† or 1b†	Systematic review, meta-analysis, or meta-synthesis of multiple studies
2a or 2b	Best study design for domain
3a or 3b	Fair study design for domain
4a or 4b	Weak study design for domain
5a or 5b	General review, expert opinion, case report, consensus report, or guideline

Quality Level	Local Consensus Definition

†a = good quality study; b = lesser quality study

Table of Recommendation Strength

Strength	Definition
It is strongly recommended that... It is strongly recommended that...not...	When the dimensions for judging the strength of the evidence are applied, there is high support that benefits clearly outweigh risks and burdens (<i>or vice versa for negative recommendations</i>)
It is recommended that... It is recommended that...not...	When the dimensions for judging the strength of the evidence are applied, there is moderate support that benefits are closely balanced with risks and burdens.
There is insufficient evidence and a lack of consensus to make a recommendation...	

See the original guideline document for the dimensions used for judging the strength of the recommendation.

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Positional plagiocephaly

Guideline Category

Prevention

Clinical Specialty

Family Practice

Pediatrics

Intended Users

Advanced Practice Nurses

Nurses

Physician Assistants

Physicians

Guideline Objective(s)

To evaluate, among infants less than two months of age, if infant positioning education given to their care givers versus no education increases the amount of time the infant spends in positions other than supine and decreases the incidence of positional plagiocephaly

Target Population

Infants less than two months of age and premature infants with adjusted age less than two months

Note: Excluded are infants who have a medical condition where varying infant position may increase or cause health risk.

Interventions and Practices Considered

Routine education regarding "tummy time" and infant positioning for care givers of infants

Major Outcomes Considered

Incidence of positional plagiocephaly

Methodology

Methods Used to Collect/Select the Evidence

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

Search Strategy

Key words: positional plagiocephaly; plagiocephaly; infant positioning; non-syndromic plagiocephaly; deformational plagiocephaly

Limits: English, infants, 2000 to 2011

Databases: CINAHL, PubMed

End date of retrieval: 12-30-11

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Table of Evidence Levels

Quality Level	Definition
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Quality Level	Definition
1a or 1b	Systematic review, meta-analysis, or meta-synthesis of multiple studies
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3a or 3b	Fair study design for domain
4a or 4b	Weak study design for domain
5a or 5b	General review, expert opinion, case report, consensus report, or guideline
5	Local Consensus

†a = good quality study; b = lesser quality study

Methods Used to Analyze the Evidence

Systematic Review

Description of the Methods Used to Analyze the Evidence

Not stated

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Not stated

Rating Scheme for the Strength of the Recommendations

Table of Recommendation Strength

Strength	Definition
It is strongly recommended that... It is strongly recommended that... not...	When the dimensions for judging the strength of the evidence are applied, there is high support that benefits clearly outweigh risks and burdens (<i>or vice versa for negative recommendations</i>)
It is recommended that... It is recommended that...not...	When the dimensions for judging the strength of the evidence are applied, there is moderate support that benefits are closely balanced with risks and burdens.
There is insufficient evidence and a lack of consensus to make a recommendation...	

See the original guideline document for the dimensions used for judging the strength of the recommendation.

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Peer Review

Description of Method of Guideline Validation

This Best Evidence Statement has been reviewed against quality criteria by 2 independent reviewers from the Cincinnati Children's Hospital Medical Center (CCHMC) Evidence Collaboration.

Evidence Supporting the Recommendations

References Supporting the Recommendations

Cavalier A, Picot MC, Artiaga C, Mazurier E, Amilhau MO, Froye E, Captier G, Picaud JC. Prevention of deformational plagiocephaly in neonates. *Early Hum Dev.* 2011 Aug;87(8):537-43. [PubMed](#)

Jennings JT, Sarbaugh BG, Payne NS. Conveying the message about optimal infant positions. *Phys Occup Ther Pediatr.* 2005;25(3):3-18. [PubMed](#)

Lennartsson F. Testing guidelines for child health care nurses to prevent nonsynostotic plagiocephaly: a Swedish pilot study. *J Pediatr Nurs.* 2011 Dec;26(6):541-51. [PubMed](#)

van Vlimmeren LA, van der Graaf Y, Boere-Boonekamp MM, L'Hoir MP, Helders PJ, Engelbert RH. Effect of pediatric physical therapy on deformational plagiocephaly in children with positional preference: a randomized controlled trial. *Arch Pediatr Adolesc Med.* 2008 Aug;162(8):712-8. [PubMed](#)

Wen LM, Baur LA, Simpson JM, Rissel C, Flood VM. Effectiveness of an early intervention on infant feeding practices and "tummy time": a randomized controlled trial. *Arch Pediatr Adolesc Med.* 2011 Aug;165(8):701-7. [PubMed](#)

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

Early caregiver education regarding unlimited restriction of movement, infant positioning, and safe infant environment reduces the incidence of positional plagiocephaly (PP) and has a positive effect on reduction of diagnosed cases of PP during the first 12 months and infants less than 6 months of age.

Potential Harms

Not stated

Qualifying Statements

Qualifying Statements

This Best Evidence Statement addresses only key points of care for the target population; it is not intended to be a comprehensive practice guideline. These recommendations result from review of literature and practices current at the time of their formulation. This Best Evidence Statement does not preclude using care modalities proven efficacious in studies published subsequent to the current revision of this document. This document is not intended to impose standards of care preventing selective variances from the recommendations to meet the specific and unique requirements of individual patients. Adherence to this Statement is voluntary. The clinician in light of the individual circumstances presented by the patient must make the ultimate judgment regarding the priority of any specific procedure.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Implementation Tools

Audit Criteria/Indicators

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Staying Healthy

IOM Domain

Effectiveness

Identifying Information and Availability

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Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2012 Jun 6

Guideline Developer(s)

Cincinnati Children's Hospital Medical Center - Hospital/Medical Center

Source(s) of Funding

Cincinnati Children's Hospital Medical Center

Guideline Committee

Not stated

Composition of Group That Authored the Guideline

Group/Team Members: Candyce L. Wilson, RN, BSN, Division of Outpatient Services; Mary Ellen Meier, RN, MSN, CPN, Center for Professional Excellence and Business Integration, Research and Evidence-Based Practice, EBP Mentor; Zienia Samaan, MD, FAAP, Medical Director Pediatric Primary Care Center & Hopple Street Health Center; Pamela Hudson, PT, MPH; Dawn Rothchild MSN, RN, Division of Plastic & Reconstructive Services; David A. Billmire MD, FAAP, Medical Director Division of Plastic Surgery

Financial Disclosures/Conflicts of Interest

No financial conflicts of interest were found.

Guideline Status

This is the current release of the guideline.

Guideline Availability

Electronic copies: Available from the [Cincinnati Children's Hospital Medical Center Web site](#) .

Print copies: For information regarding the full-text guideline, print copies, or evidence-based practice support services contact the Cincinnati Children's Hospital Medical Center Health James M. Anderson Center for Health Systems Excellence at EBDMInfo@cchmc.org.

Availability of Companion Documents

The following are available:

- Judging the strength of a recommendation. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 2008 Jan. 1 p. Available from the [Cincinnati Children's Hospital Medical Center Web site](#) .
- Grading a body of evidence to answer a clinical question. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 1 p. Available from the [Cincinnati Children's Hospital Medical Center Web site](#) .

- Table of evidence levels. Cincinnati (OH): Cincinnati Children's Hospital Medical Center; 2008 Feb 29. 1 p. Available from the [Cincinnati Children's Hospital Medical Center Web site](#) .

Print copies: For information regarding the full-text guideline, print copies, or evidence-based practice support services contact the Cincinnati Children's Hospital Medical Center Health James M. Anderson Center for Health Systems Excellence at EBDMInfo@cchmc.org.

In addition, suggested process or outcome measures are available in the [original guideline document](#) .

Patient Resources

None available

NGC Status

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